

Please amend claims 1, 11 and 12 to read as follows. (A marked up version of the amended claims is attached at the end of this Amendment and Response.)

1. (Twice Amended) A catalyst system for polymerisation of ethylene, comprising chromium oxide and a metallocene supported on an inorganic support, characterised by:

- a) said support being a particulate inorganic oxide;
  - b) chromium of said chromium oxide being in a reduced oxidation state,
- and
- c) a metallocene compound having a formula:



wherein each  $Cp$ , being equal or different, is an unsubstituted or substituted cyclopentadienyl compound, and  $R'$  and  $R''$ , independent of each other, are selected from the group consisting of alkyls having 1 to 6 carbon atoms, unsubstituted or substituted benzyl, and phenoxy substituted with alkyls having 1 to 6 carbon atoms, and  $R'$  or  $R''$  may be a halide, and characterized by a molar ratio between zirconium and chromium in the final catalyst in a range from 0.1:1 to not higher than 2:1.

11. (Twice Amended) A catalyst system according to claim 1, characterised in that said molar ratio between zirconium and chromium is from 0.5:1 to 1:1.

12. (Twice Amended) A method for the preparation of a catalyst system for polymerisation of ethylene, comprising chromium oxide and a metallocene supported on an inorganic support, the method comprising the steps of:

- a) calcining a support being a particulate, inorganic oxide selected from the group consisting of alumina, silica, titania, zirconia, magnesia, and combinations thereof,
- b) joining onto a surface of said support a chromiumorganic compound to obtain a catalyst precursor,
- c) subjecting said catalyst precursor to oxidising conditions to obtain chromium in an oxidised state, and

- d) subjecting said catalyst precursor to reducing conditions to obtain a prereduced catalyst, characterised by
- e) reducing the oxidised chromium to obtain a main part thereof in a bivalent oxidation state, and
- f) contacting said reduced catalyst with a metallocene compound having a formula:



wherein each Cp, equal or different, is an unsubstituted or substituted cyclopentadienyl compound, and R' and R'', independent of each other, are selected from the group consisting of alkyls having 1 to 6 carbon atoms, unsubstituted or substituted benzyl, and phenoxy substituted with alkyls having 1 to 6 carbon atoms, and R' or R'' may be a halide, and characterized by a molar ratio between zirconium and chromium in the final catalyst in a range from 0.1:1 to not higher than 2:1.